

# 東亞球蝸牛屬陸貝之系統學與生物地理學

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## 摘要

陸貝在陸域生態系以及土壤生物群聚之中，扮演著關鍵物種之角色，廣泛被用來研究生物分布、擴散分化等生物議題。目前在系統學與分類學的研究中，隨著分子演化及分子系統學領域日益成長，各種分子工具的發明及運用，已經使得分子與形態特徵具有相同的重要性，具有相輔相成的作用。本實驗主要重點研究方法即是以形態以及分子標誌重建陸棲軟體動物的親緣關係以及演化歷程，以系統學的結果探討生物地理學和演化機制。利用粒線體DNA (mitochondrial DNA)中的16S rRNA (約800 bp)與細胞色素氧化<sup>1</sup> (cytochrome oxidase 1; CO1, 約700bp)，進行聚合<sup>2</sup>連鎖反應，利用Neighbour-joining法(Kimura two-parameters distance, 1000 bootstrap)及進化最簡約法則分析法(maximum parsimony analysis)對球蝸牛屬陸貝建構球蝸牛序列之親緣關係樹，並以系統學的結果探討生物地理學和演化機制，目前分為九大群可以分為九種，可以當做球蝸牛屬陸貝形態上分類的基礎以及分類學上的研究方向，未來希望對分子快速鑑定農作物進出口防疫檢疫有很大的參考依據。

關鍵字：球蝸，系統學，生物地理學，粒線體DNA，親緣關係

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